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Descrizione fisica	1 online resource (212 p.)
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Soggetti	Sewage disposal
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Chemistry considerations -- 1.1 Introduction -- 1.2 Elements, compounds, and radicals -- 1.3 Reactive characteristics of atoms -- 1.4 Molecules -- 1.5 Moles and normality -- 1.6 Properties of radicals -- 1.7 Ions -- 1.8 Inorganic chemicals -- 1.9 Units of measure -- 1.10 Milliequivalents -- 1.11 Reaction rates or "reaction kinetics" -- 1.12 Reactions common to wastewater treatment -- 1.13 Coagulation and flocculation -- 1.14 Hardness of water -- 1.15 Chemical oxygen demand -- 1.16 Total organic carbon -- 1.17 Fats, oil, and grease -- 1.18 Material balance calculations -- 1.19 Emerging chemicals of concern -- 2. Biology considerations -- 2.1 Introduction -- 2.2 Bacteria -- 2.3 Viruses -- 2.4 Algae -- 2.5 Fungi -- 2.6 Protozoans -- 2.7 Microscopic multicellular organisms -- 2.8 Pathogens -- 2.9 Indicator organisms -- 2.10 Biological oxygen demand -- 2.11 BOD formulas of concern -- 2.12 Biological decay rate k -- 2.13 Nitrogenous BOD -- 2.14 Temperature effects on k-rate -- 2.15 Biological growth curve kinetics -- 2.16 Dissolved oxygen concepts, measurement, and relevance -- 2.17 Biological nitrification and denitrification -- 3. Wastewater treatment processes -- 3.1 Introduction -- 3.2 Basic design parameters -- 3.3 Preliminary treatment units -- 3.4 Primary treatment units -- 3.5 Secondary treatment -- 3.6 Sludge management -- 3.7 Tertiary treatment units -- 3.8 Details of disinfection of wastewater --

4. Sedimentation fundamentals -- 4.1 Introduction -- 4.2 Discrete particle sedimentation -- 4.3 Flocculant particle sedimentation -- 4.4 Weirs -- 4.5 Clarifier design -- 4.6 Flocculator clarifiers -- 4.7 Design of discrete particle clarifiers -- 4.8 Design of flocculant particle clarifiers -- 4.9 Hindered settling -- 4.10 Design of upflow clarifiers -- 5. Subsurface wastewater disposal -- 5.1 Introduction -- 5.2 Conventional subsurface disposal systems -- 5.3 Alternative disposal field designs -- 6. Water reuse -- 6.1 Introduction -- 6.2 Specific reuse options -- About the author -- Index.

Sommario/riassunto

This book provides a concise presentation of the fundamental elements of wastewater treatment process design. It shows the reader where various authors and authorities differ in their interpretation of the fundamentals and offers multiple tables of data from which to select appropriate design parameters. This book is intended to be a process design reference book, not a detailed design manual or a textbook suitable for classroom use.
